2010 National Hydraulics Engineering Conference - AGENDA

Time	Session	Title	Speaker/Moderator	Location
Tuesday, 31 August 2010				
11am	Registration			Lobby
1pm	**GS Welcome**	**Introductions and welcome from moderator**	**Cynthia Nurmi**	**K G B – PII**
1:10pm	GS Keynote	Keynote Speeches	John Njord, James Christian, Blaine Leonard	K G B – PII
3pm	**Break 1**			**K G B – PI**
3:30pm	GS National Com.	Welcome from FHWA, AASHTO, UDOT and TRB	Rick Renna, Joe Krolak,	K G B – PII
4:30pm	GS Research	Research Summaries	David Reynaud	
5pm	Adjourn			
6pm	Dinner on your own			
Tuesday evening, come meet your fellow conferees at the mixer. Light refreshments will be served and a cash bar will be available.				
Wednesday, 1 September 2010				
8am – 10am	**1A**	**Plans of Action: Preparation, Implementation, and Management**	**Cynthia Nurmi**	**K G B – PII**
8:00-8:25		The New HEC-23 and NHI Course 135048 for Bridge Scour and Stream Instability Countermeasure Design	Pete Lagasse, Paul Clopper, Lyle Zevenbergen (Ayres Associates)	
8:25-8:50		Preparing Scour Critical Plans Of Action For Hawaiian Bridges – From Large Sand-Bed Rivers On Oahu To Steep Cobble/Boulder Streams On The Big Island	Jake Gusman, Christine Warren, and Martin J. Teal, (WEST Consultants, Inc.); Mike Hunnemann, (KAI Hawaii Inc.) Curtis Matsuda (HI DOT)	
8:50-9:15		Lessons Learned in Scour Monitoring	Beatrice E. Hunt (STV)	
9:15-9:40		The Present State of Oregon's Plan of Action Program	John Woodroof (ODOT)	

9:40-10:10		Tennessee and Georgia DOT's Implementation of BridgeWatch	Jon Zirkle (TDOT) Joseph P. Scannell and Marc K. Baribault (US Engineering Solutions)	
8am – 10am	**1B**	**Water Quality**	**Karuna Pujara**	**K G B – PIII**
8:00-8:30		Best Practices in Addressing NPDES and Other Water Quality Issues in Highway System Management	Scott Taylor (RBF Consulting)	
8:30 – 9:00		Navigating Through The Uncertain World of TMDL Compliance	Andy McDaniel, Matt Laufer, Dave Henderson (NCDOT)	
9:00-9:30		Water Quality Monitoring of Canton Creek during Construction Event	Aditya Bhatt and Susan Burns (Georgia Institute of Technology); Jon Griffith and Brad Ehrman (GADOT)	
9:30-10:00		Design of Advanced Bioretention System- Delaware Welcome Center	William Lucas, Steve Sisson, (Delaware DOT)	
10am – 10:30pm	**Break 2**			**K G B – PI**
10:30am – 1pm	**2A**	**Improving Highway Stream Crossing with Stream Restoration Principles**	**Michael Fazio**	**K G B – PII**
10:30 – 10:55		Stream Morphology Application for Waterways Crossing Design	Andrzej J. Kosicki (MSHA)	
10:55 – 11:20		Adapting to a Changing Environment: Design Strategies for the Puyallup River	Casey Kramer (WSDOT)	
11:20 - 11:45		Improving the Habitat for Endangered Salmonid Species on the Wenatchee River	Martin Fisher (ICFI)	
11:45 - 12:10		Stream Restoration and Hydraulic Rehabilitation for Highway Betterment	Timothy Mallette (NHDOT)	
12:10 - 12:35		Stream Stability and Restoration Design Of Salt Creek	William R. Bailey (WYDOT)	
12:35 - 1:00		Understanding the Flow and Erosion Dynamics on the Sacramento River	Kevin Flora (CALTRANS)	
10:30am – 1pm	**2B**	**Water Quality**	**Karuna Pujara**	**K G B – PIII**
10:30 – 11:00		Quantifying Environmental Benefits of Bioretention for Managing Highway Runoff	Allen Davis (University of MD)	
11:00 – 11:30		Field Evaluation of Environmental Benefits of Grass Swales For Managing Runoff	Allen Davis (University of MD)	
11:30 - 12:00		Characterization of Stormwater Runoff Constituent Loads from Bridge Decks in North Carolina and Determination of the Effects of Bridge Stormwater Runoff on Selected Receiving Waters	Chad Wagner (USGS), Dave Henderson (NCDOT), Matt Laufer (NCDOT)	

12:00 - 12:30		Improved Standard Sumps as Best Management Practice for Stormwater Treatment	Adam Howard, Omid Mohseni, John Gulliver, Heinz Stefan (University of Minnesota)	
12:30 - 1:00		A Drainage Model for Roadways Paved with Permeable Friction Course	Brad Eck, Randall Charbeneau, and Michael Barrett (University of Texas)	
1pm	**Lunch 1- GS Field Trip**	**Field Trip Presentation**	**John Rice (USBR)**	**K G B – PI**
2pm	**Field Trip**	**Provo River Restoration Project (treats)**	**John Rice (USBR)**	**Board buses at the resort's entrance**
5pm	Field Trip	Returning from Provo River Restoration		Main Entrance
6pm	**Dinner**	**On Your Own (TCHH Dinner)**		
7pm -9pm	**Visit Downtown Park City**			**Shuttles to Park City**
Thursday, 2 September 2010				
8am – 10am	**3A**	**Bridge and Culvert Hydraulic Design**	**James Baird**	**K G B – P II**
8:00-8:30		Hydraulics of Bridge Rail Systems in Floodplain Analysis	Brandon Klenzendorf (Univ Texas – Austin)	
8:30 – 9:00		Manning's n and Culvert Head Discharge Relationship Uncertainties for Culverts	Blake Tullis and Steven Barfuss (Utah State)	
9:00-9:30		Research Results: NCHRP 15-36 "Coincident Flows at Stream Confluences"	Roger Kilgore (KCM)	
9:30-10:00		New Scour Protection Technology – How Does it Stack Up?	Amanda Cox, Chris Thornton, and Michael Turner (CSU)	
8am – 10am	**3B**	**Climate Change: Trends, Analyses, and Adaptation Strategies**	**Cynthia Nurmi**	**K G B – P III**
8:00-8:30		Fine-scale climate projections for the US from downscaling of global climate model data	Thomas Reichler (Utah State)	
8:30 – 9:00		Trends in Heavy Rainfalls in the Observed Record in Selected Areas of the U.S.	Geoffrey Bonnin (NOAA)	
9:00- 10:00		FHWA Adaptation Activities, Climate Effects Typology, and Relevance for the Hydraulic Engineer	Robert Ritter, Robert Kafelanos, and Joe Krolak (FHWA)	
10am – 10:30am	**Break 3**			**K G B – P I**
10:30AM – 12	**4A**	**Coastal Design**	**David Henderson**	**K G B – P II**

10:30 – 11:00		Analyzing the risk of coastal storm flooding of the I-10 tunnel in Mobile, Alabama	Scott Douglass, Brett Webb, Caren Reid (USA), Norman Scheffner (Computational Hydraulics & Transport, Inc), Mack Taylor (KBR)	
11:00 – 11:30		Wave Induced Scour at Coastal Infrastructure	Brett Webb and Scott Douglass (USA)	
11:30 - 12:00		Summary of Ongoing Streambed Scour Evaluations at Tidal Bridges in Alaska	Jeffrey Conaway (USGS) Michael Knapp (Alaska DOT)	
10:30am – 12	**4B**	**Hydrology: From Rainfall to Runoff**	**Andrea Hendrickson**	**K G B – P III**
10:30 – 11:00		Methods for Estimating and Disaggregating Continuous Daily Streamflow at Ungaged Sites for Bridge Scour and Stream Restoration Investigations	Thomas Over (USGS)	
11:00 – 11:30		Effective Use of Radar-Estimated Rainfall For Basin Calibration – A Fresh Approach to an Old Problem	John Henz and William Badini (HDR)	
11:30 - 12:00		Loss-Rate Functions for Texas Watersheds	David Thompson (Anderson Engineering)	
12 – 1:15pm	**Lunch 2**	**Lunch with Larry - Summary of National Survey**	**Veronica Ghelardi**	**K G B – P I**
1:15 – 1:30pm	**Break (no food)**			
1:30pm – 3:30pm	**5A**	**Hydraulic Software**	**Veronica Ghelardi**	**K G B – P II**
1:30-2:00		An Update on the StreamStats Web Application of the U.S. Geological Survey	Kernell Ries (USGS)	
2:00 – 2:30		The Hydraulic Toolbox: A Suite of Hydraulic Calculators based on FHWA's Hydraulic Engineering Circular 22: Urban Drainage Design Manual and Other Publications	FHWA	
2:30-3:00		HY-8: An Updated Version of the Culvert Analysis Program based on the FHWA's Hydraulic Design of Highway Culverts, Hydraulic Design Series No. 5 (HDS-5)	FHWA	
3:00-3:30		HY-12: A New Tool for Analyzing Storm Drain Capacity and Highway Drainage Structures based on FHWA's Hydraulic Engineering Circular 22: Urban Drainage Design Manual and Other Publications	FHWA	
1:30pm – 3pm	**5B**	**Fish Passage**	**Glenn DeCou**	**K G B – P III**
1:30-2:15		Step-By-Step Assessment and Prioritization for Fish Passage Considerations in Utah	Aaron Beavers (NMFS)	
2:15 – 2:45		Designing for Fish Passage in Minnesota Culverts	Petra Dewall (MNDOT)	
2:45-3:30		Hobble Creek Structure Replacement: Challenges and Solutions to Accommodate Endangered Species	Creighton Omer and Bill Pope (HDR)	

3:30pm – 4pm	Break 4			K G B – P I
4pm – 5:30pm	6A	Hydraulic Software	Veronica Ghelardi	K G B – P II
4:00 – 4:30		New and Upcoming Features in the Surface Water Modeling System (SMS)	Aquaveo	
4:30 – 5:00		Bridge Scour Using GIS Integrated Storm Surge Hydrodynamic Modeling Lesner Bridge Replacement Project, Virginia Beach, VA Bridge Scour, New Software, and Emerging Science	Gamal Hussan (HWR) and Khalid Hussein (Clark Nexsen Architecture & Engineering)	
4pm – 5:30pm	6B	Fish Passage	Glenn DeCou	K G B – P III
4:00 – 4:45		Aquatic Organism Passage Design Guidelines for Culverts – Two Case Studies	Roger Kilgore (KCM)	
4:45 – 5:30		Taking Credit for Designed Refuge in Culvert Barrels for Fish Passage	Rollin Hotchkiss, Lindsay Esplin, Suzanne Monk, Mark Belk, and Russel Rader (BYU) Michael Fazio and Denis Stuhff (UDOT)	
5:30pm	Adjourn –	Dinner on your own		
6pm – 10pm	Visit Famous Mormon Tabernacle Choir (rehearsal), Famous Genealogical Library, Temple Square and other Downtown attractions			Salt Lake City Bus from hotel
Friday, 3 September 2010				
8am – 10am	7A	Bridge Scour	Denis Stuhff	K G B – P II
8:00-8:30		Case Study of Innovative Pier Scour Countermeasures at Montana RR bridge	Erich Schmitz (TranSystems)	
8:30 – 9:00		Overview of NCHRP Project No. 24-29: Scour at Bridge Foundations on Rock	Jeffery Keaton (MACTEC), Su Mishra and Paul Clopper (Ayres Associates)	
9:00-9:30		Impacts of Debris on Bridge Pier Scour	Pete Lagasse, Paul Clopper, Lyle Zevenbergen (Ayres Associates)	
9:30-10:00		Comparison of the HEC-18, Melville and Sheppard Pier Scour Equations	Lyle Zevenbergen (Ayres Associates)	
8am – 10am	7B	Emerging Issues	Dave Henderson	K G B – P III
		Round Table Discussion		
10am – 10:30am	Break 5			K G B – P I
10:30am	8A	Bridge Scour		K G B – P II

10:30 – 11:00		"Mud, Trains, and Automobiles" – A case study of foundation scour analyses for the new Sakonnet River Bridge in Rhode Island.	Justin Lennon and Chin Lien (PB)	
11:00 – 11:30		Time-Dependent Scour Depth under Bridge-Submerged Flow	Junke Guo (Univ Nebraska) Kornel Kerenyi (FHWA)	
10:30am	**8B**	**Emerging Issues**		**K G B – P III**
11:30am – 12	**GS Concluding**	**Closing of the conference**	**Cynthia Nurmi**	**K G B – P II**
12 Noon	Adjourn	To our next conference		